

MAGNOX CCGT
CONNECTION AND INFRASTRUCTURE WORKS
BRYNCIR SUBSTATION

ARCHAEOLOGICAL ASSESSMENT

Report number : 311



Prepared for
ESTELL WARREN LANDSCAPE ARCHITECTS
NATIONAL GRID COMPANY plc

October 1998

Ymddiriedolaeth Archaeolegol *Gwynedd* Archaeological Trust

Event
PRN
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1 INTRODUCTION

Estell Warren Landscape Architects on behalf of the National Grid Company plc has commissioned Gwynedd Archaeological Trust (Contracts Section) to carry out an archaeological assessment on the site of the electricity substation to be located 2 Km south east of Bryncir, Gwynedd at SH48554280. The proposed site covers an area of 0.768 hectares with an access route from the A487(T), Llanwnda to Tremadog road, to the north. The scheme also involves laying an underground cable from the substation to an existing transmission line to the west at SH47764258.

2 ASSESSMENT BRIEF

The aims of the archaeological assessment were to identify and record the cultural heritage of the area concerned and to evaluate the importance of what was identified, both as a cultural landscape and as individual features which make up that landscape. Recommendations would be made to minimise the impact of the proposed development on the cultural heritage.

3 METHODOLOGY

3.1 Desk-top study

A desk-top study was undertaken which involved consulting the Regional Sites and Monuments Record, the Royal Commission on Ancient and Historic Monuments (Wales) *Inventory of Caernarvonshire Vol II*, relevant material held by the County Archive Service at Caernarfon, including tithe maps and schedules, Ordnance Survey maps, and other literary sources.

Aerial photographs of the area were consulted at the regional offices of the Countryside Council for Wales in Bangor.

The cartographic, photographic, archival and literary information was collated and plotted on the relevant OS map at a scale of 1:10000 to form the basis for the field work.

3.2 Field search

A field visit was undertaken on 27th October 1998 to verify the results of the desk based assessment and to identify the potential for further archaeological sites at the site of the proposed substation and along the routes of the access road and underground cable. Features identified were photographed and marked on a 1:10000 scale OS map.

3.3 Geophysical survey

During the field search an assessment was made of the possibilities of geophysical surveying in the area. This involves the use of a Fluxgate Gradiometer FM36 which picks up magnetic anomalies beneath the ground.

3.4 Report

The features identified during fieldwork were assessed and allocated to the categories listed below. These are intended to give an idea of the importance of the site and specific recommendations for further evaluation or mitigatory measures. The criteria used for allocating sites to categories are based on those used by the Secretary of State when considering ancient monuments for scheduling. These

are set out in Welsh Office Circular 60/96 *Planning and the Historic Environment: Archaeology*.

3.5 Categories

The following categories were used to define the importance of the archaeological resource:

Category A - Sites of National Importance

Scheduled Ancient Monuments, Listed Buildings and sites worthy of scheduling or listing *i.e.* those sites which would meet the criteria for scheduling or listing.

Sites which are scheduled or listed have legal protection and it is recommended that all Category A sites remain preserved and protected *in situ*.

Category B - Sites of Regional Importance

Sites which would not fulfil the criteria for scheduling or listing but which are of particular importance within the region.

Preservation *in situ* is the preferred option for Category B sites but if damage or destruction cannot be avoided, appropriate detailed recording might be an acceptable alternative.

Category C - Sites of district or local importance

Sites which are not of sufficient importance to justify a recommendation for preservation if threatened.

Category C sites merit adequate recording in advance of damage or destruction.

Category D - Minor and damaged sites

Sites which are of minor importance or so badly damaged that little remains to justify their inclusion in a higher category.

For Category D sites rapid recording, either in advance of, or during, destruction, should be sufficient. This category may also include areas where finds or features may be expected but no work is thought necessary in advance of the scheme.

Category E - Sites needing further investigation

Sites whose importance is as yet undetermined and which will require further evaluation before they can be allocated to a permanent category. By the end of the assessment there should be no sites remaining in this category.

3.6 Definition of evaluation and mitigatory recommendations

Where a feature of archaeological significance is affected, evaluation and/or mitigation measures will be included in accordance with current policies recommended in Welsh Office Circular 60/96 *Planning and the Historic Environment: Archaeology*.

3.6.1 Evaluation Recommendations

Two principal techniques are used for carrying out evaluation, geophysical survey and trial trenching.

Geophysical survey

The two principal types of geophysical survey used for archaeological evaluation are magnetometry and resistivity. The former involves the use of a magnetometer, which detects variation in the earth's magnetic field caused by the presence of iron in the soil. This is usually in the form of weakly magnetised iron oxides which tend to be concentrated in the topsoil. Features cut into the subsoil and

back-filled or silted with topsoil contain greater amounts of iron and can therefore be detected with the gradiometer. Strong readings can be produced by the presence of iron objects, and also hearths or kilns. Surveys are carried out in areas of not less than 20m by 20m, and readings usually taken every 0.5m, giving 800 readings per grid. Data is presented in a series of X-Y and Grey-scale plots, and location of each of the grids will be shown on a map at a scale not less than 1:2500.

Resistivity relies on the relative inability of materials to conduct an electrical current which is passed through them. As resistivity is linked to moisture content, and therefore porosity, rocky features, such as wall foundations will give relatively high resistivity response, while structures such as clay filled ditches and pits, which retain moisture, give a relatively low response. In practice the method involves the injection of a small electrical current through the earth and the measurement of the subtle sub-surface variation in the resistance over a given area.

Trial trenching

Trial trenching is carried out by excavating trenches of an appropriate size to evaluate specific sites and areas. This can mean siting trenches in order to achieve a representative sample across the proposed area of development. The trenches typically measure between 20 m. and 30 m. long by 2 m. wide. The turf and topsoil is removed by mechanical excavator, and the resulting surface cleaned by hand and examined for features. Anything noted is further examined, so that the nature of any remains can be understood, and mitigation measures can be recommended. The location of all trenches is shown on maps at a scale of not less than 1:2500. All trenches containing features of relevance are planned at a scale of 1:20, and sections recorded at a scale of 1:10. Full context records are kept for all trenches. All trenches and features are photographed in colour film and colour transparency.

3.6.2 Mitigatory Recommendations

None:

No impact so no requirement for mitigation measures.

Detailed recording:

Requiring a photographic record, surveying and the production of a measured drawing prior to commencement of works.

Archaeological excavation may also be required depending on the particular feature and the extent and effect of the impact.

Basic recording:

Requiring a photographic record and full description prior to commencement of works.

Watching brief:

Requiring observation of particular identified features or areas during works in their vicinity. This may be supplemented by detailed or basic recording of exposed layers, structures or sections.

Avoidance:

Features need not be affected but their position should be noted and avoided by all works.

Reinstatement:

The feature should be reinstated with archaeological advice and supervision.

3.7 Definition of Impact

The impact has been defined as none, slight, likely, considerable or unknown as follows:

None:

There is no construction impact on this particular site. Sites identified as of particular importance are, where possible, avoided by the improvement proposals. Such sites have been identified in the tables.

Slight:

This has generally been used where the impact is marginal and would not by the nature of the site cause irreversible damage to the remainder of the feature, eg a track or field boundary.

Likely:

In some instances the site in question would not fall within the direct line of the proposed development but could be affected by construction works and therefore may, subject to its nature, be removed or damaged.

Considerable:

The total removal of a feature or its partial removal which would effectively destroy the remainder of the site.

Unknown:

This is used when the location of the site is unknown, but thought to be in the vicinity of the proposed development.

4 ARCHAEOLOGICAL RESULTS

4.1 Location and topography

The proposed site is situated in the community of Dolbenmaen within the county of Gwynedd. The area lies between the mountains of the Snowdon massif and the agricultural lands of Llyn Peninsula and Eifionydd. The site is situated in a shallow valley between Afon Dwyfach to the west and Afon Dwyfor to the east. Elevation ranges from 70m OD at Afon Dwyfach to just over 100m OD at the A487(T). Land use is predominantly pasture for cattle and sheep. The larger fields to the north contain improved grassland while those around the substation site and to the west contain marshland used as rough grazing. Field boundaries include dry stone walls, stone faced earth banks and post and wire fencing.

4.2 Statutory protection and description

The proposed site lies within the Llyn Peninsula Environmentally Sensitive Area. Only one archaeological site within the vicinity of the proposed development has been designated a Scheduled Ancient Monument. This is the inscribed stone at Pen Llystyn at SH48344541 which will be unaffected by the proposed scheme.

4.3 Historical background.

4.3.1 Prehistoric

The immediate vicinity of the assessment area is particularly rich in remains of the Bronze Age. A sickle, possibly of the fourth century BC, was discovered in a peat bog at Plas Llecheiddior (PRN 2805 at SH475437). A crescent-shaped decorative or ceremonial gold lunula was discovered in 1869 at Llecheiddior Uchaf (PRN 2807 at SH47724476). This rare item in Wales was believed to have been imported from Ireland and is now in the British Museum. At Pen Llystyn, at SH481449, pottery sherds of a Bronze Age funerary urn (PRN 2809) and a domestic flat-rimmed vessel (PRN 2802) were discovered. These are now in the National Museum of Wales. A linear alignment of ten stone cists containing funerary urns was located in 1821 at SH47974490 (PRN 2803). They were excavated on the site of the present gravel diggings but are believed to have fallen to pieces when they were removed.

There is evidence of settlement in the area in prehistoric times in the form of hut groups. Between Bryncir and Garndolbenmaen are the remains of two enclosed hut groups (PRNs 146 & 147) and a round hut group (PRN 148). Mounds of burnt stone have been identified in the vicinity of Cefntrefor-isaf to the north-east of the assessment area (PRNs 139-143) and by the banks of the Dwyfach to the north of the Goat Hotel (PRN 154). The function and purpose of these mounds remains uncertain, but

it is likely that they indicate the sites of Prehistoric cooking areas, though saunas and laundries have also been suggested.

4.3.2 Roman

In 1957 gravel digging exposed a previously unknown Roman fort at Pen Llystyn immediately to the north of the present village of Bryncir (PRN 144). Excavations carried out confirmed a first century fort of standard layout, occupying an area of 4.5 acres, with an annexe to the south. It was probably founded as a part of a scheme of consolidation which followed the Roman victory of 78 AD and remained in occupation until the end of the century. The internal buildings included barracks, stores, workshops, a hospital and a commandant's house. A fortlet of the second century AD in the northern quarter of the earlier fortifications was probably established between 100 AD and 130 AD as part of a systematic campaign for the reoccupation of the district. The situation of Pen Llystyn would bar communication between the Llyn Peninsula, with its major hill-forts, and the mountains to the east, and it was well-suited to control traffic on a north-south axis across the base of the peninsula. A road connected the fort with Segontium (Caernarfon) in the north and Tomen y Mur in the south, though its precise route has not been established. A temporary Roman camp is situated at Derwyn Bach to the west of Afon Dwyfach at SH47574535 (PRN 130).

4.3.3 Medieval

Whilst the events of the post-Roman and early medieval periods remain obscure, it is possible that the site of the Roman fort remained the focus of some type of settlement. Traces of a lightly palisaded enclosure in the western quadrant of the original Roman fort were observed before it was destroyed by gravel digging. Continuing occupation during the early medieval period is suggested by a 6th century inscribed stone which was found in 1901 at Llystyn Gwyn farm (PRN 136) at SH48214552. The stone bears the Latin inscription ICORI(x) and an Irish form of the name, ICORIGAS, in Ogam script.

The complex pattern of local administration which largely survived into the nineteenth century evolved in the medieval period. The area formed part of the Commote of Uwchdwyfor; the lands on the east of the river formed a detached portion of the parish of Penmorfa, whereas those to the west fell into the parishes of Llanfihangel y Pennant (detached) and Dolbenmaen, and the extensive parish of Clynnog was situated to the north.

To the west of Afon Dwyfach the land formed part of the medieval townships of Brynbras in the south and Llecheiddior further north (PRNs 7338 & 7339). A mill is recorded at Llecheiddior as early as 1352. The lower part of the Llecheiddior township belonged to the church at Clynnog Fawr, but was sold prior to the valuation of 1535. It became divided into several separate holdings, under various and changing ownerships and tenancies, including Wern, Glynllifon, Plas Hen and Corsygedol, Mostyn, Cefn Amwlch, Bryncir and Bodvel. The only house with medieval origins in the area survives at Derwyn Bach. It is now a storage barn but is of typical sub-medieval construction using boulder rubble with massive quoins and bonding stones. There are the remains of two medieval long huts and a platform house to the east of Bryncir (PRNs 151-153).

To the east of Afon Dwyfach the land formed an upper, detached, portion of the township of Penyfed, whose centre lay further to the south, and from which it was separated by an arm of the township of Dolbenmaen. Its earliest recorded name, in a late fifteenth century rental, appears to be *y tir yn llestynrrun*, "the land of Llystyn Rhun". The most important holding here was Llystyn Gwyn, which is still farmed. The name has been derived from a compound of *llys* (palace, royal court) and *dynn* (fort), the latter probably from the ruins of Roman fort. Llystyn Gwyn is recorded in 1551 and by 1761 it was the property of the Wern Estate. The other farms and holdings in the area become identifiable in documents of the 17th century onwards - Blaen y Cae and Cae Ysgubor in 1629, Ty'n y Caeau in 1789. To the east the land rose up to commons on the mountain slopes.

4.3.4 Modern and Industrial period

The pattern of land-sale and speculation, which was already clear in the medieval period, continued in

the modern period when the local farms were sold many times. The gentry families moved away from the area and their role was taken over by a new generation of *arrivistes* whose background lay in commerce and speculation. Ty'n y Caeau, for instance, belonged to Evan Lloyd Vaughan in 1789, to Sir Thomas Lloyd Mostyn in 1800 and to Sir Williams Wynn in 1838. Melin Llecheiddior was bought by David Ellis Nanney of Gwynfryn in 1813 and appears to have been reconstructed in 1886.

Some of the land in the area came to belong to the Bryncir estate, whose centre lay at Bryncir Hall, some miles to the east. This passed by marriage to Colonel Gwilym Lloyd Wardle, whose tempestuous public career included being turned down for a commission in the regular army for dishonesty in selling horses. He had his revenge when he was able to force the resignation of the Commander in Chief, the Duke of York, George III's younger son, over the illegal sale of commissions by the Duke's mistress, who had herself been Wardle's mistress. He was a partner with William Alexander Madocks in the woolen factory in Tremadoc until he was discovered supplying cloth to Napoleonic France as well as to the British army.

In 1809 Col Wardle sold the Bryncir estate to Captain Joseph Huddart RN who chose to settle in Eifionydd but whose background lay in Lincolnshire. Huddart, who was to become President of the Royal Society, had made great deal of money out of allegedly sharp practice at Livorno (Leghorn) in Italy when he was a consular official there. His son, Sir Joseph Huddart, was an active improving landlord who invested considerable sums in the area.

The improvement of local transport facilities in the nineteenth century proved to have a profound effect on the area. John Evans's map of 1795 shows the old road from Arfon to Eifionydd running to the east of the present assessment area and also a meandering lane from Garn Dolbenmaen via Glan Dwyfach to Tafarn Faig, a route approximating to the modern A487(T). A further road led south from Glan Dwyfach to Criccieth. In 1821 Sir Joseph Huddart began work on a straighter alignment from Garn Dolbenmaen to Tafarn Faig, and thence north on a completely new route to Llanllyfni and Pen y Groes. This not only connected the centre of his estate at Bryncir Hall, several miles to the east of the present village, with outlying lands in Pen y Groes, but also provided a better through route, and it remains in use as the trunk road. The bridge at Llecheiddior also dates from the same period, since the bond for its construction is dated 1817, though an earlier bridge appears to be marked on the Evans map of 1795. The roadside hostel at Tafarn Faig is first noted on the tithe schedule of 1844 and the present Goat Inn is also marked, though apparently only as a farm. Less welcome to the traveller was the toll-gate erected at Glan Dwyfach, at the junction of the road to Criccieth. One local historian describes how around the year 1840 a local manifestation of the Rebecca riots took place, when the gate was smashed up and the pieces thrown into the river, after which no further attempt was made to collect tolls at that point. However the 1844 tithe map clearly shows a gate at this point.

The arrival of the railway in 1866 was instrumental in the evolution of the modern village of Bryncir. The London and North Western Railway often named stations in country areas after the hinterland they served rather than after any settlement near the station itself. The village of Bryncir, which appears only as a straight road through fields on the various tithe maps, was a well established settlement by 1886. The Glandwyfach Inn, now known as The Goat, and the Bryncir Arms are recorded by this date, and within a few years a number of shopkeepers and craftsmen appear in the trade directories. The village's one chapel was constructed for the Calvinistic Methodists in 1868, and the Rev. Henry Hughes, a knowledgeable local historian and a prolific writer, served as its minister for forty-five years. The cattle market was established as a consequence of the railway and survived the line's closure in December 1964. Here cattle from the farms of Lley, Eifionydd and southern Arfon were loaded onto trains for the English slaughterhouses.

4.4 Results of the desk-top survey and fieldwork

The site of the proposed substation is shown on the Dolbenmaen tithe map of 1839 as the property of William Ormsby-Gore and in lease to William Jones. The field is referred to as Gors meaning 'fen' or 'bog' and is marked as a turbary or source of peat for fuel. It is still peat bog with evidence of having been woodland in the past. Large drainage ditches traverse the field from north to south with minor drainage channels running east to west. Attempts have been made in recent years to plough this field as it is relatively free of stone but it remains rough pasture consisting mainly of sedge, moss and juncus

with a few willow trees and gorse bushes. It was not possible to assess the depth of peat although environmental evidence from the peat would be capable of ascertaining past land use.

The proposed access road from the A487(T) to the site passes through two fields of improved pasture belonging to Bryn-'refail-uchaf, a farm on the north side of the road. The access route follows the line of a public footpath through these fields before entering the land belonging to Bryn-'refail-isaf where it leaves the footpath to follow field boundaries south to the marshy field of rough pasture in which the substation will be located.

The proposed route for the underground cable to the existing 132kV transmission line to the west runs north west from the proposed substation site to the farm track which leaves Bryn-'refail-isaf in an easterly direction. The cable follows the line of this track to the farm and then skirts the farm yard to follow the access track from the B4411 running north east to south west. The B4411 road has been re-routed at the southern end of the track to Bryn-'refail-isaf with the old alignment still visible. The route of the underground cable crosses the old road just to the west of the present farm track at SH48024258. After crossing the present B4411 the line of the underground cable crosses the southern side of a field of improved pasture with two recently planted curvilinear shelter belts of conifers before crossing Afon Dwyfach. The route will breach a low earthen bank constructed as a possible flood defence on the eastern bank of the river. The field to the west of the river is in the process of improvement with boulders being cleared and heaped on the river bank. The route then enters a field of rough pasture with bracken obscuring any features.

The site was visited on 27th October 1998 when features of interest were marked on OS maps at a scale of 1:10000 and photographed on Kodak 200 ASA colour negative film. Sites considered of archaeological interest will be described as they occur from SH48794342 on the A487(T) road in the north to the transmission line at SH47764258 in the west. Eight figure National Grid References will follow the site number and name.

1 Route of old road - SH49634304

PRN 62168

Category: C

Impact: slight

The 1795 John Evans and the first edition 2 inch OS maps show the old meandering road from Garn Dolbenmaen via Glan Dwyfach to Dafarn Faig passing on the north side of Bryn-'refail-ganol farm. The 2 inch OS map surveyed between 1816-1823 has Bryn-r-efail-ganol marked as Bryn-yr-efail-uchaf and Bryn-'refail-uchaf marked as Bryn-yr-efail. By the time of the first 1 inch OS map c. 1841 the new straighter road ran to the north of Bryn-'refail-ganol which is marked as Bryn-r-efail-ganol. The access route for the proposed substation will cross the line of this old road at the stile and blocked gate at this location.

Evaluation: none

Mitigation: watching brief and basic recording

2 Site of Bryn-'refail-ganol - SH48624310A

62169

Category: E

Impact: unknown

A farm called Bryn-'refail-ganol occurs on the early cartographic sources at this approximate location. The John Evans map of 1795 refers to it as Brynrevelcannol and the 1839 Dolbenmaen parish tithe map as Brynefail Gannol. The early maps show the old road passing Bryn-'refail-ganol farm although on the 2 inch OS map it is shown as Bryn-yr-efail-uchaf. On the first 1 inch OS map c. 1841 it is marked as Bryn-r-efail-ganol with three tracks running west, east and south. It would appear to lie to the west of the existing farm building. Possible traces of enclosures are evident on an aerial photograph held by the Countryside Council for Wales but nothing was visible during fieldwork.

Evaluation: none

Mitigation: watching brief and basic recording

3 Field barn at Bryn-'refail-ganol - SH48704305

62170

Category: D

Impact: none

This could be the building shown on the 2 inch OS map to the east of Bryn-'refail-ganol. The barn consists of coursed and mortared roughly dressed local stone under a slate roof. The roof and the blocking of an old doorway have collapsed at the north end of the barn. The barn stands within a courtyard with a track running to the east which may be a remnant of the eastern track shown on the first edition 2 inch OS map of 1838. Gateposts around the barn and in adjacent fields consist of large orthostatic boulders which appear to have been reused many times. The access route should run to the west of this feature and should not affect it.

Evaluation: none

Mitigation: avoidance

4 Remnants of wall - SH48434283

62171

Category: D

Impact: likely

At the southern end of a clearance mound in the north west corner of the field there is evidence of an earlier structure. Several sections of low dry stone walling can be identified which may indicate the existence of a former building.

Evaluation: none

Mitigation: supervised watching brief with an archaeologist present during topsoil stripping phase and basic recording

5 Farm track at Bryn-'refail-isaf - SH48084268c

62172

Category: C

Impact: considerable

A 230m long farm track runs west to east from the farm yard of Bryn-'refail-isaf to the north west corner of the field in which the proposed substation is located. This 5.5m wide track has a surface of small stones with an old stone faced bank along the south side and a more recent dry stone wall to the north. Both boundaries are surmounted by post and wire fences. The track is present on the 1839 Dolbenmaen parish tithe map as well as the earliest OS maps.

Evaluation: none

Mitigation: watching brief and basic recording

6 Farm track at Bryn-'refail-isaf - SH48084268c

62173

Category: C

Impact: considerable

The 200m long farm track from the B4411 to Bryn-'refail-isaf is present on the 1839 Dolbenmaen parish tithe map as well as the earliest OS maps. It consists of a 7m wide sunken track between high stone faced earth banks surmounted by mature, mainly conifer, trees. It has been surfaced with two concrete tyre tracks in recent years but may retain earlier surfaces below.

Evaluation: none

Mitigation: watching brief and basic recording

7 Old road on B4411 - SH48024257c

62174

Category: D

Impact: slight

The alignment of the B4411 road has been recently changed at the southern end of the track to Bryn-'refail-isaf. The old road is still visible to the north and south of the farm track. As this road occurs on

the earliest cartographic sources it may reveal previous surfaces below the tarmac.

Evaluation: none

Mitigation: watching brief and basic recording

8 Bank at Tyddyn Felin - SH47904260c 62175

Category: D

Impact: slight

About 2m from, and parallel to, the eastern bank of Afon Dwyfach is a low earth bank 1m high and up to 2m wide surmounted by mature hawthorn trees. This bank is not a boundary feature and may have been constructed as a flood defence.

Evaluation: none

Mitigation: watching brief and basic recording

4.5 Geophysical survey

During the field search the area was assessed for geophysical surveys. The site of the proposed electricity substation at Bryncir lies directly beneath and up to 100m to the west of the existing 400kV power lines. Although no pylons are located on the site these are 12 cables between the pylons on the west side and 6 cables along the east. These cables cause magnetic interference in the Fluxgate Gradiometer giving invalid readings. The topography of the area, consisting of frequent deep ditches and standing water would militate against a successful magnetometry survey.

The substation site would not be very suitable for a resistivity survey as the field is relatively free of rock and the peat is water-logged.

As a result of these assessments no geophysical surveys were conducted as part of the evaluation.

5 SUMMARY OF RECOMMENDATIONS

| Site No | Site name | Importance | Impact | Evaluation | Mitigation |
|---------|------------------------------------------|------------|--------------|------------|-----------------------------------------------|
| 1 | Route of old road at Bryn-'refail-ganol | C | Slight | None | Watching brief and basic recording |
| 2 | Site of Bryn-'refail-ganol | E | Unknown | None | Watching brief and basic recording |
| 3 | Field barn at site of Bryn-'refail-ganol | D | None | None | Avoidance |
| 4 | Remnant wall at Bryn-'refail-isaf | D | Likely | None | Supervised watching brief and basic recording |
| 5 | Farm track to east of Bryn-'refail-isaf | C | Considerable | None | Watching brief and basic recording |
| 6 | Farm track to south of Bryn-'refail-isaf | C | Considerable | None | Watching brief and basic recording |
| 7 | Old road on the B4411 | D | Slight | None | Watching brief and basic recording |
| 8 | Bank at Tyddyn Felin | D | Slight | None | Watching brief and basic recording |

General recommendations

There are no known features present on the route of the easement as advised which need hinder the construction and so there are no preconditions about the route or the positioning of the spoil dumping.

Although there are a number of features on or close to the proposed route, most are of a minor character. Those features which are of greater or potential value can either be avoided or be mitigated by watching and recording briefs.

The following recommendations are made:

During construction

1. There should be a general watching brief of the topsoil stripped easement and substation site
2. There should be a watching brief to allow observation of any excavated trenches with basic recording as required.

After construction

There should be allowance for a proper level of archiving of any resulting records and of a report.

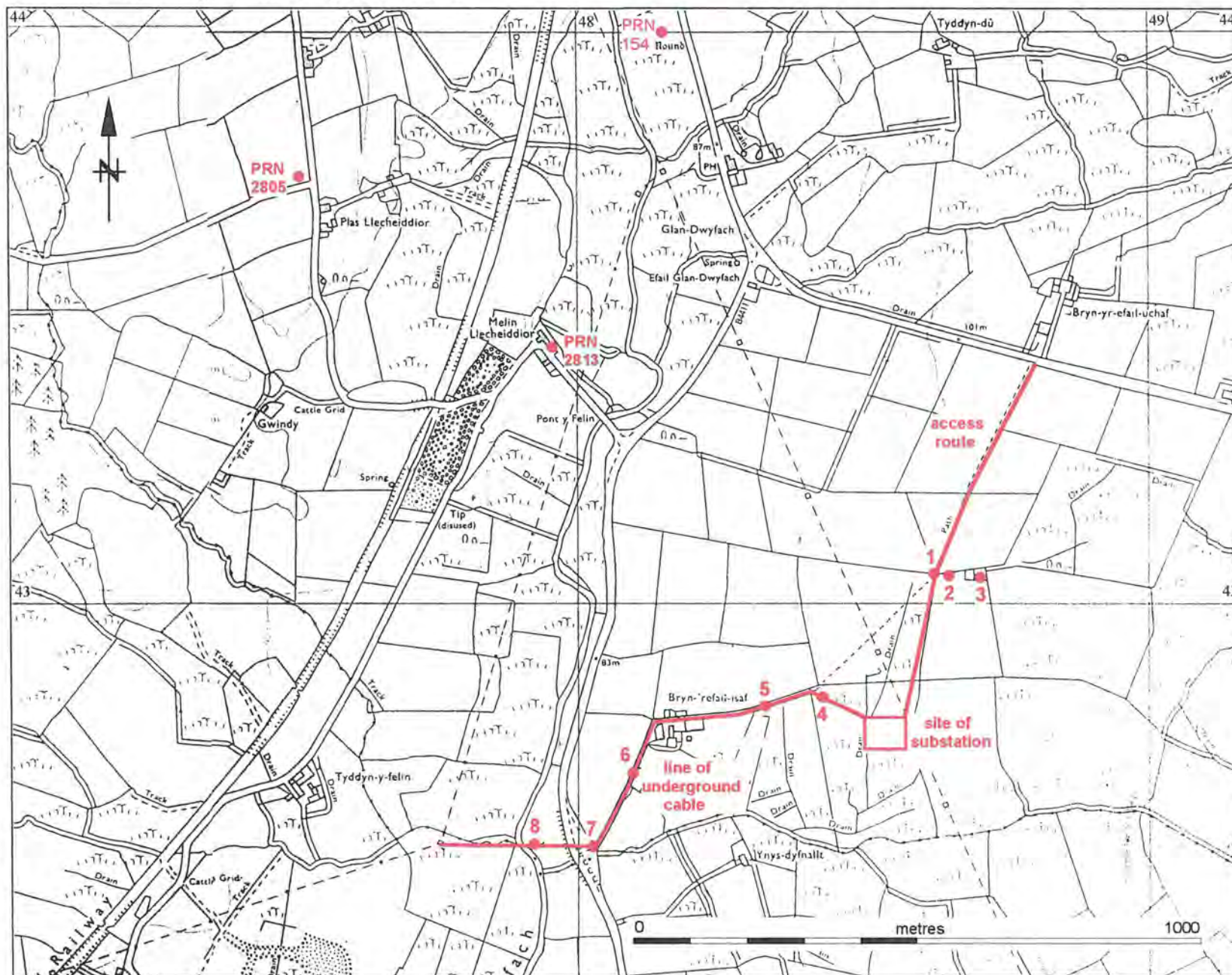
6 SUMMARY

An archaeological assessment has been carried out at the site of the proposed electricity substation at Bryncir and along the access and underground cable routes. The assessment consisted of a desk-top study of relevant cartographic, archival and bibliographic sources and a field search. A geophysical survey was not possible owing to interference from the overhead power cables. All features identified along the route were assigned to a category of archaeological significance and recommendations were made for subsequent evaluation and mitigation.

Eight features of archaeological interest were identified but none were considered of National or Regional Importance. The old road at Bryn-'refail-ganol and the tracks at Bryn-'refail-isaf were considered of local interest and assigned to Category C. It is recommended that a watching brief and recording of all work on these sections is sufficient. Although of only minor archaeological significance, it is recommended that the remnant walls and the flood defence bank are recorded during a watching brief. The field barn was also considered to be of minor importance but should not be directly affected by the scheme. The site of Bryn-'refail-ganol farm has been assigned to Category E as its exact location is unknown. It is recommended that a watching brief during all phases of the work is undertaken in this area and any features identified should be recorded.

As this part of Gwynedd has such a rich and diverse cultural heritage it is recommended that a watching brief is undertaken during the top soil stripping phase of the work along the entire route of the pipeline. If further archaeological sites are discovered during this phase mitigation measures will be recommended for their treatment at the time.

Location of archaeological sites at Bryncir substation





Site of the proposed substation at Bryncir from the north west



Site 1 : Old stile and gate on line of old road at Bryn-'refail-ganol from the north



Site 3 : Field barn at Bryn-'refail-ganol from the north east



Site 4 : Remnant of dry stone wall to the east of Bryn-'refail-isaf from the north west



Site 8 : Possible flood defence bank along the east side of Afon Dwyfach at Tyddyn-y-felin



Field clearance at Tyddyn Felin to the west of Afon Dwyfach viewed from the north east

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Gwynedd Archaeological Trust 1990 *Report No 2024: Watching Brief, Threeways Garage, Bryncir*

7.2 Caernarfon Record Office

X Plan B 33: agreement to build Pont Llecheiddior, 1817.
X/D8 4 260-276: Breese Jones Casson papers: Bryncir estate.

7.3 University of Wales, Bangor

Porth yr Aur manuscripts (concerning construction of new road from 1821).

7.4 Aerial photographs

Countryside Council for Wales 1992 Aerial survey

7.5 Cartographic sources

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